



NSF SAFETY DEPARTMENT

Safety AND Health Newsletter

January 2004 Issue



Why Safety Belts?

To understand the value of safety belt use, it's important to understand some of the dynamics of a crash. Every motor vehicle crash is actually comprised of three collisions.

The Car's Collision

The first collision is known as the car's collision, which causes the car to buckle and bend as it hits something and comes to an abrupt stop. This occurs in approximately one-tenth of a second. The crushing of the front end absorbs some of the force of the crash and cushions the rest of the car. As a result, the passenger compartment comes to a

more gradual stop than the front of the car.

The Human Collision

The second collision occurs as the car's occupants hit some part of the vehicle. At the moment of impact, *unbelted* occupants are still traveling at the vehicle's original speed. Just after the vehicle comes to a complete stop, these *unbelted* occupants will slam into the steering wheel, the windshield, or some other part of the vehicle interior. This is the human collision.

Another form of human collision is the person-to-person impact. Many serious injuries are caused by *unbelted* occupants colliding with each other. In a crash, occupants

tend to move toward the point of impact, not away from it. People in the front seat are often struck by *unbelted* rear-seat passengers who have become high-speed projectiles.

The Internal Collision

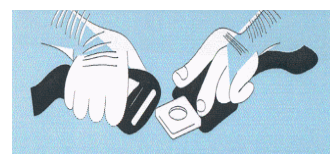
Even after the occupant's body comes to a complete stop, the internal organs are still moving forward. Suddenly, these organs hit other organs or the skeletal system. This third collision is the internal collision and often causes serious or fatal injuries.

So, Why Safety Belts?

During a crash, properly fastened safety belts distribute the forces of rapid deceleration over larger and

stronger parts of the person's body, such as the chest, hips and shoulders. The safety belt stretches slightly to slow your body down and to increase its stopping distance. The difference between the belted person's stopping distance and the *unbelted* person's stopping distance is significant. It's often the difference between life and death.

Excerpts from "Sudden Impact," NHTSA, 1992.



Five Ways to Prevent a Fall

- 1) Clean up! Remove clutter and boxes, especially from stairs and high-traffic areas. Clean up spills immediately.
- 2) Re-route obstructing electrical cords.

- 3) Fill holes and depressions around your property.
- 4) Read the instructions for proper use of ladders, step stools and other household equipment.
- 5) Replace old light bulbs. But always use the appropriate wattage listed.



STOP! Before starting any job, be sure you have the correct personal protective equipment (PPE) required. Check with your immediate supervisor or the Safety Department if you are not



certain or if PPE is not available.

An **eyewash station** must have a flow rate of 0.4 gallons per minute (gpm) for 15 minutes. The location of the unit must be within 10 seconds and 100 feet of the hazard and within 10 feet for strong acid/corrosive hazards. Plumbed units shall be flushed weekly for at least three minutes and documented.

Source: ANSI Z358.1



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BACK CARE Safety Tips

from The National Safety Council

Your back is involved in every job you do. Sitting. Standing. Walking. Lifting. Bending. Reaching. Running. Even when you're resting or sleeping, your back is on the job. It takes only a few minutes each day to take good care of your back. Remember these basics:

- Keep your back and abdominal muscles strong. This lets them support the curves at your neck, middle back and lower back.
- There's a right way to stand, sit, lift, turn, walk and sleep. Learn it and live it!
- Keep your weight low to reduce the strain on your back.
- Learn how to cope with worry and stress.
- Get professional help fast if your back hurts.

Cumulative Trauma

Using any motion once or twice may not cause problems. But when the same motion is used repeatedly for a long time, it can cause strain, discomfort, illness and disability and may require corrective surgery. These problems are called cumulative trauma, a condition that accumulates over time.

- Make sure to use tools, machines or equipment in a way that won't cause strain over time.
- Search for ways to work that will

accommodate your needs. Don't try to force your work patterns to fit the job.

Safe Lifting

Safe Lifting is a challenge. Learning correct lifting techniques is vital to health and helps avoid the back pain that afflicts eight out of 10 Americans. Tips for safe lifting include:

- Use common sense and take your time.
- Wear the right personal protective equipment for lifting and carrying.
- Avoid bending, reaching and twisting.
- Use the tilt test to estimate an object's weight. (Tilt test: Get a good grasp on one of the object's edges. Slowly try to tilt it up. If it's difficult to move, it's too heavy to lift by yourself. Get someone to help or use a lifting aid.)
- Lift from the low risk position only.
- Grasp the object securely.
- Draw the object as close to you as possible.
- Make sure your footing is secure.

Working with Computers

Working with a computer doesn't have to be a strain. To make your work more pleasant and less stressful, stay on the lookout for warning signs that your working conditions aren't right.

- **Eyestrain, Headaches:** You may need new glasses or contacts. The computer screen is too bright or not bright enough, or not positioned correctly.

Glare or reflections are distracting. The lettering on the screen isn't crisp.

- **Sore Hands, Wrists, Arms, Shoulders:** You aren't sitting properly. Make sure you have arm and wrist support. Raise or lower the keyboard.
- **Sore Back:** You're slouching, or working in a chair that doesn't give enough support. Try placing a rolled up towel in the small of your back to ease the strain.

Numbness in your Legs and Feet: The chair may be restricting blood circulation. Try using a footrest or a chair with a downward-curving front edge.



The following are the proper ways to use hand tools. – Use tools only for the purpose for which they were designated. – Keep cutting edges sharp. Dull tools can slip. – Store tools so they cannot fall and be damaged or can cause injury. – Carry pointed or shored edged tools in pouches or holsters. – Repair or replace tools when they are damaged. – Replace or refit loose or split handles. Keep handles secure and smooth. – Lubricate adjustable and other moving parts of tools to prevent wear and misalignment.



Reference: Navy Safety Center

THE FOLLOWING IS THE SAFETY DEPARTMENT'S ACTIVITIES FOR JANUARY 2004:

- Enlisted Safety Committee Meeting—8 Jan 04, 1500H, NSF Conference Room
- Safety Representatives Briefing—14 Jan 04, 1330H, B-331, NSF Safety Training Room: Target Audience: All newly designated Safety Representatives
- HazMat Coordinators Briefing—15 Jan 04, 1330H, B-331, NSF Safety Training Room: Target Audience: All newly designated HazMat Coordinators
- OSH Inspection - MWR Recreational Facilities and NSF Supply (Fuels)
- Island Indoctrination Class (Safety) - Bi-weekly, Acey Deucey Room, Turner Club Complex: Target Audience: All new personnel (mandatory for officers, enlisted and civilian personnel)



THERE'S ALWAYS ROOM FOR IMPROVEMENT. VISIT US AT <http://www.jce.disa.mil> AND TELL US HOW WE CAN IMPROVE THE ISLAND'S SAFETY PROGRAM.